What is claimed is:

- 1. A semiconductor device characterized by having boron, carbon and nitrogen as main components, and a coating to which sulfur has been added serves as surface protection and covers at least part of a surface.
- 2. The semiconductor device of Claim 1, characterized in that a carbon composition ratio (atomic ratio) of the coating is at least 0.1.
- 3. The semiconductor device of one of Claim 1 and Claim 2, characterized in that oxygen is included in the coating.
- 4. The semiconductor device of any one of Claims 1 to 3, characterized by having a multi-layer structure with a heterogeneous film attached to the coating.
- 5. The semiconductor device of any one of Claims 1 to 4, characterized in that the heterogeneous film contains an amount of structural elements different to the coating.
- 6. The semiconductor device of any one of Claims 1 to 4, characterized in that the heterogeneous film is a film with main components identical to the coating, without sulfur being added thereto.
- 7. The semiconductor device of any one of Claims 1 to 4, characterized in that the heterogeneous film is a film with silicon as a main component.
- 8. The semiconductor device of any one of Claims 1 to 7, characterized by having a III-V compound semiconductor.
- 9. The semiconductor device of any one of Claims 1 to 8, characterized in that the semiconductor is a field effect

transistor.

- 10. The semiconductor device of any one of Claims 1 to 9, characterized in that the semiconductor is a bipolar transistor.
- 11. The semiconductor device of any one of Claims 1 to 8, characterized in that the semiconductor is a diode.
- 12. A semiconductor device fabrication method characterized by disposing a film formation substrate in a plasma atmosphere containing nitrogen, supplying boron atoms, carbon atoms and sulfur atoms to the film formation substrate, and forming a boron carbon nitride film to which sulfur has been added.
- 13. A semiconductor device fabrication method characterized by disposing a film formation substrate facing a boron nitride sputter portion, supplying carbon atoms and sulfur atoms to the film formation substrate, and forming a boron carbon nitride film to which sulfur has been added.
- 14. A semiconductor device fabrication method characterized by disposing a film formation substrate facing a boron nitride and carbon sputter portion, supplying sulfur atoms to the film formation substrate, and forming a boron carbon nitride film to which sulfur has been added.
- 15. A semiconductor device fabrication method characterized by disposing a film formation substrate facing a boron nitride laser abrasion, supplying plasma

containing carbon atoms and sulfur atoms to the film formation substrate, and forming a boron carbon nitride film to which sulfur has been added.

- 16. A semiconductor device fabrication method characterized by disposing a film formation substrate facing a boron nitride and carbon laser abrasion, supplying plasma containing sulfur atoms to the film formation substrate, and forming a boron carbon nitride film to which sulfur has been added.
- 17. The semiconductor device fabrication method of any one of Claims 12 to 16, characterized in that the semiconductor is a field effect transistor.
- 18. The semiconductor device fabrication method of any one of Claims 12 to 16, characterized in that the semiconductor is a bipolar transistor.
- 19. The semiconductor device fabrication method of any one of Claims 12 to 16, characterized in that the semiconductor is a diode.
- 20. A communication system device characterized by having the semiconductor device of any one of Claims 1 to 11.